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Connecting through touch: Attitudes toward touch in pregnancy are associated with couples' sexual and affectionate behaviors across the transition to parenthood

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Abstract

Touch is a universal nonverbal action often used by romantic partners to demonstrate affection and care for each other. Attitudes toward touch might be particularly relevant across periods of relational strain—such as the transition to parenthood—when couples face many novel stressors and shifting priorities which can interfere with their sexual and affectionate experiences. New parent couples (N = 203) completed self-report measures online across six time-points (two prenatal). We tested whether couples' attitudes toward touch (touch aversion, touch for affection, touch for emotion regulation) at baseline (20 weeks mid-pregnancy) predicted their frequency of sexual and affectionate behaviors from mid-pregnancy through 12-month postpartum. Both partners' more positive attitudes toward touch (i.e., for affection and emotion regulation) and lower aversive attitudes toward touch, as measured in mid-pregnancy, predicted couples' higher frequency and variety of sexual and affectionate behaviors at 3-month postpartum. Touch attitudes generally did not predict the degree of change in the frequency or variety of sexual or affectionate behaviors, with one exception: non-birthing parents' more positive attitudes toward touch for emotion regulation in mid-pregnancy predicted a slower decline in couples' affectionate behaviors

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across pregnancy. Findings underscore a link between new parents' attitudes toward touch and their subsequent sexual and affectionate behaviors, particularly in the early postpartum period. New parents need to navigate novel sexual changes and a nonverbal strategy such as touch might be useful to promote intimacy and care.

Keywords
Affection, longitudinal, postpartum, pregnancy, sexual behavior, touch, trajectories

Introduction

Touch is a universal form of nonverbal communication used throughout the lifespan (Field, 2014). In the context of adult romantic relationships, touch is frequently used to demonstrate affection (e.g., kissing, holding hands) or to initiate sexual activity (e.g., manual stimulation, sexual intercourse). Touch is in fact presumed to be a key mechanism through which romantic relationships are developed and maintained (Brennan et al., 1998), fostering secure attachment, caregiving, intimacy, and well-being between partners (Debrot et al., 2021; Shaver et al., 1988). Thus, touch is considered a protective factor through which couples maintain their relationship during challenging life periods (Jakubiak & Feeney, 2017a). Yet, whether individuals engage in touch behaviors in the context of romantic relationships might be influenced by their attitudes towards the use of touch (i.e., one's predisposition towards different uses of physical touch; Brennan et al., 1998; Jakubiak & Feeney, 2017b).

The transition to parenthood is among the most demanding periods for couples' relationships. From pregnancy to postpartum, a range of novel stressors (e.g., less time together, sleep deprivation, change in roles) are often accompanied by declines in both relationship satisfaction and sexual well-being (Leonhardt et al., 2021; Rosen et al., 2020). Maintaining sexual well-being during this potentially tumultuous time is relevant given its implications for the physical and mental health of new parents and due to its critical contribution to long-term relationship stability and satisfaction (Diamond & Huebner, 2012; Joel et al., 2020; Tavares et al., 2019).

Whether and how individual differences such as attitudes towards touch are linked to sexual and affectionate behaviors during known periods of relationship vulnerability such as the transition to parenthood is currently unexplored. Building on the relational-cognitive theory of touch (Jakubiak & Feeney, 2017a) and previous research on touch (Debrot et al., 2021; Rancourt et al., 2017), we propose that attitudes toward touch—including touch aversion, touch for affection, and touch for emotion regulation—will shape the frequency of affectionate and sexual behaviors among couples transitioning to parenthood, a period when these types of behaviors typically decline (Jawed-Wessel & Sevick, 2017; Rosen et al., 2020).

Touch in intimate relationships

Touch is a foundational component of the development and maintenance of intimate relationships. Touch allows romantic partners to express affection for one another, foster

security, and initiate sexual activity (Curtis et al., 2012; Jakubiak & Feeney, 2016). Besides being positively linked to individual well-being (e.g., life satisfaction, positive mood; Debrot et al., 2021), touch has a profound impact on relationships. According to the relational-cognitive theory of touch (Jakubiak & Feeney, 2017a), there are both neurobiological and relational-cognitive mechanisms for the effect of touch on well-being. With respect to neurobiological mechanisms, social touch activates a specific class of sensory receptors (i.e., C-tactile afferents) that create pleasurable and rewarding experiences through the release of oxytocin and endogenous opioids, which are known to buffer against stress and improve relational, physical, and psychological well-being (Jakubiak & Feeney, 2017a; 2017b). Indeed, greater touch between romantic partners accelerates cortisol recovery and lowers cardiovascular reactivity when couples are exposed to stressful situations (Ditzen et al., 2019; Grewen et al., 2003). For relational-cognitive mechanisms, when touch is interpreted as an expression of love and care, it leads to feelings of closeness and security, which subsequently improves relationship quality, enhances the mood of both the giver and recipient through coregulation of emotions, increases positive health behaviors, and reduces stress (Debrot et al., 2013, 2014; Jakubiak & Feeney, 2016, 2017a, 2017b). The beneficial effects of touch may be particularly relevant during stressful periods such as the transition to parenthood, when couples are faced with a range of novel stressors that have implications for their sexual and relational well-being (Tavares et al., 2019). Attitudes toward touch may influence one's willingness to engage in touch behaviors (e.g., affectionate and sexual behaviors) because attitudes typically orient people's actions (Ajzen, 1991; Ajzen & Fishbein, 1980), and this process might be especially relevant across stressful transitional periods.

Touch attitudes

Given the various functions of touch in intimate relationships, individuals can differ in their attitudes toward touch, which represent one's predisposition to give and receive physical touch and, more specifically, one's predisposition towards different uses of physical touch (Brennan et al., 1998; Jakubiak & Feeney, 2017b). Prior research has identified several dimensions of attitudes toward touch, and three of them have been found to be specifically linked to sexual and relational outcomes, namely: touch aversion (i.e., the tendency to feel discomfort or distress related to physical touch; Guerrero & Andersen, 1991; Hielscher & Matar, 2017), touch for affection (i.e., the tendency to use touch to show affection toward one's partner; Jakubiak, 2022), and touch for emotional regulation (i.e., the tendency to use touch to help regulate emotions; Brennan et al., 1998; Debrot et al., 2013). Attitudes represent an individual's evaluation of a particular object, person, thing, or event, and empirically supported theories posit that they directly influence behaviors (Ajzen, 1991; Ajzen & Fishbein, 1980), including in the transition to parenthood (Jawed-Wessel et al., 2019), yet the association between attitudes toward touch and touch behaviors is, to the best of our knowledge, still unexplored.

Couples who report engaging in more affectionate touch experience greater relationship satisfaction, commitment, stability, and intimacy and less relationship distress and conflict (Jakubiak & Feeney, 2017b). The tendency to use touch as an emotional

regulation strategy—that is to calm down and regulate one's emotions—is associated with both romantic partners' positive mood and greater intimacy (Debrot et al., 2013, 2014). Conversely, more aversive attitudes towards touch are linked to more negative attitudes towards physical closeness, less intimacy, and lower verbal communication and self-disclosure in romantic relationships (Andersen & Leibowitz, 1978).

Although couples' attitudes towards touch might also impact their sexual well-being, less is known about these associations. Still, we can draw from other literature. For example, in a daily diary study, Muise and colleagues (2014) found that when couples engaged in more satisfying affectionate touch after sex, both partners reported greater sexual and relationship satisfaction. Rancourt and colleagues (2017) found that, compared to controls, women with sexual problems demonstrated more negative affect in response to sexual and affectionate touch when they were asked to imagine interacting with their romantic partner, suggesting that their own cognitive, affective, and physical state may affect their attitudes. However, these studies assessed the outcomes of touch behaviors, but did not assess attitudes toward touch and their implications for touch behaviors. Such responses may be especially relevant in the transition to parenthood, a time when sexual problems become more prevalent (Fitzpatrick et al., 2021). Also, given that attitudes are strong predictors of behaviors (Ajzen, 1991; Ajzen & Fishbein, 1980), intervening at the attitudinal level early on (i.e., in pregnancy) might benefit couples' sexual and affectionate behaviors postpartum.

Sexual and affectionate behaviors in the transition to parenthood

New parents tend to experience a decrease, on average, in the frequency of sexual behaviors across pregnancy until 3-month postpartum (i.e., a point when most couples resume sexual activity) and then a gradual increase throughout the postpartum period (Bartellas et al., 2000; Jawed-Wessel & Sevick, 2017; Rosen et al., 2020). The reasons for these changes are multifaceted, including the common experience of sexual problems (e.g., increased pain and reduced sexual desire; Fitzpatrick et al., 2021), alterations in body image and physiology for the person who gave birth (Pauls et al., 2008), and heightened levels of perinatal stress and fatigue (Tavares et al., 2019; van Anders et al., 2013).

The early postpartum is a specifically challenging period for new parents, given that novel challenges arise during this period (e.g., breastfeeding, fatigue/sleep deprivation, parenting decisions, couple members' changing roles and responsibilities) which may create an intense threat or demand on the individual and/or couple (Doss & Rhoades, 2017). Concomitantly, it is during the early postpartum (i.e., until 3-month after childbirth) where most couples typically resume sex, but they often face the most sexual problems, including reduced frequency, particularly of vaginal intercourse (Jawed-Wessel & Sevick, 2017; Rosen et al., 2020). Couples may nevertheless engage in a variety of sexual behaviors across pregnancy and the postpartum period. Thus, although penetrative sex may decline, couples may rely on a diversity of other sexually pleasurable behaviors, either by engaging in previously overlooked behaviors or incorporating new ones (Jawed-Wessel & Sevick, 2017).

The frequency of affectionate touch behaviors may also change over the transition to parenthood, although there are mixed findings in the literature. Some qualitative research suggests that pregnancy is a time in which couples begin to redefine intimacy and become more inclusive of non-penetrative behaviors such as kissing and cuddling (Lévesque et al., 2019), which might suggest an increase in affectionate behaviors throughout this period. Other qualitative research brings up the phenomenon of being "touched out", wherein breastfeeding parents, particularly in response to the increase in touch associated with breastfeeding, experience an excess of physical contact and a potential aversion towards touch (Carathers, 2017; van Raalte et al., 2021; Yate, 2017), which may suggest a decrease in affectionate touch behaviors postpartum (their own and from their partners).

These changes pose important consequences for couples' adjustment postpartum as sexual and affectionate behaviors are central relationship maintenance behaviors (Diamond & Huebner, 2012). Individuals' touch attitudes may be implicated in new parents' trajectories of sexual and affectionate behaviors, wherein couples with an individual more aversive to touch may experience greater declines in these behaviours than those who are less averse and conversely, more positive attitudes toward touch may lead to less steep declines for these behaviors. If that is the case, then being able to identify couples' attitudes toward touch early on (i.e., during pregnancy) and provide interventions may promote more positive adjustments across the transition to parenthood.

The current study

The primary objective of this pre-registered study was to test whether gestational/birthing parents'[1] and partners' touch attitudes (touch aversion, touch for affection, and touch for emotion regulation) at baseline in mid-pregnancy (20-week gestation) predicted sexual and affectionate behaviors at 3-month postpartum (i.e., intercept), as well as the degree of change in these behaviors across pregnancy (i.e., pregnancy slope) and postpartum (i.e., postpartum slope). To do so, we also examined couples' trajectories of sexual and affectionate behaviors across the transition to parenthood (i.e., 20-week' gestation to 12-month postpartum). A dyadic perspective enabled us to examine whether partners' attitudes toward touch were linked to their sexual and affectionate behaviors. Given that this is the first study examining these research questions and that we had no theoretical reason to expect different patterns of association for each type of behavior, we looked at sexual and affectionate behaviors in an aggregated manner (i.e., overall score for each of these two outcomes). The frequency and variety of sexual behaviors are both important markers of sexual well-being (Jawed-Wessel & Sevick, 2017; Mark et al., 2015), but their cumulative effect might be a key feature of couples who fare better when faced with novel sexual challenges such as in the transition to parenthood. In other words, it might not only be relevant to engage in more frequent sexual behaviors but also to engage in a greater variety of behaviors to accommodate changes to their sexual experiences (e.g., reduced lubrication, pain during penetration; Rosen et al., 2022). As such, we were interested in assessing a combined score of the frequency and variety of behaviors. For the current study, we predicted that H1) the frequency and variety of sexual behaviors would decline from pregnancy (20 weeks) to 3-month postpartum (i.e., negative slope) and increase

from 3- to 12-month postpartum (i.e., positive slope), as indicated by a previous examination of this same dataset (Rosen et al., 2020).[2] Given the lack of research and conflicting findings regarding possible changes in the frequency of affectionate behaviors during pregnancy and the postpartum period (Lévesque et al., 2019; Yate, 2017), we made no a priori hypotheses about the shape of its trajectory.

We hypothesized that more aversive attitudes toward touch in gestational parents (i.e., the person who is pregnant) and partners (i.e., non-gestational parents) at baseline (20 weeks) would be associated with H2a) less frequent and less varied sexual and affectionate behaviors at 3-month postpartum (i.e., intercept), H2b) a steeper decline in the frequency and variety of sexual behaviors during pregnancy, and H2c) a weaker incline in the frequency and variety of sexual behaviors during the postpartum period. Conversely, we predicted that higher touch for affection attitudes and touch for emotion regulation attitudes in gestational parents and partners at baseline (20 weeks) would be associated with H3a) more frequent and more varied sexual and affectionate behaviors at 3-month postpartum (i.e., intercept), H3b) a weaker decline in the frequency and variety of sexual behaviors during pregnancy, and H3c) a stronger incline in the frequency and variety of sexual behaviors during the postpartum period. Although we did not have a specific hypothesis for how the frequency and variety of affectionate behaviors would change across the transition to parenthood, we did anticipate that H4) touch aversion, touch for affection, and touch for emotion regulation attitudes in gestational parents and partners would be significantly linked to any observed changes in the frequency and variety of affectionate behaviors over time. Differences between gestational/birthing parents and partners in the strength of the associations between touch attitudes and the frequency and variety of sexual and affectionate behavior trajectories were examined in an exploratory manner given the lack of prior research on potential different associations for birthing versus non-birthing parents. We examined the links between key sociodemographic variables (e.g., relationship length), touch attitudes and our outcomes of interest and controlled for significant associations in the analyses.

Methods

Our predictions and analysis plan were pre-registered prior to analyzing (but after collecting) the data; these are publicly accessible in the OSF page of the study, along with the deidentified data and syntax (https://osf.io/6yvt4/).

Participants

First-time birthing parents and their partners living in Canada and the United States were recruited during pregnancy (M = 19.39 weeks; *range*: 13–24 weeks, SD = 1.56). Recruitment took place between May 2016 and April 2018, and predominantly occurred online (Kijiji, Facebook; 40.0%), through flyers at doctors' offices (17.7%), and at routine ultrasound appointments at the IWK Health Centre diagnostic imaging clinic in Halifax, Nova Scotia, Canada (where clerks provided brochures about the study to eligible participants based on their patient requisition forms, and research assistants approached

interested participants to confirm their eligibility and enroll them; 15.3%). Couples were eligible provided they: (1) were at least 18 years of age; (2) were pregnant with their first child and/or had not previously given birth; (3) were in a romantic relationship of at least six months; (4) were fluent in English; (5) had access to a personal email account, and (6) they proceeded to have an uncomplicated, singleton pregnancy. Additionally, participants were excluded if they became pregnant again during the study period, as a second pregnancy may differentially affect couples' sexual and affectionate behaviors (Jawed-Wessel & Sevick, 2017). Of the 252 couples who consented, 203 met inclusion criteria and were included in the analyses (see Figure 1 for a flowchart of participants). To be inclusive of diverse gender/sexes, we refer to gestational and non-gestational partners in pregnancy and birthing and non-birthing partners postpartum.

Procedure

Other studies have been published with this dataset focusing on different research questions and variables, all of which were pre-registered (for further information, see the current study's pre-registration at https://osf.io/6yvt4/). Participants provided informed consent online prior to completing their first survey and were asked to complete their surveys independently from their partner. At baseline (i.e., between 18 and 24 weeks of pregnancy), each member of the couple was emailed a personalized link to an online survey hosted by Qualtrics. Follow-up surveys were sent at 32-week of pregnancy, 2-week postpartum, and 3-, 6-, 9-, and 12-month postpartum. Participants completed relevant sociodemographic variables and a measure of touch attitudes at baseline. The frequency and variety of sexual and affectionate behaviors were collected at all time-points. Survey links expired after four weeks and participants received email and phone reminders to promote retention. Both members of the couple received Amazon gift certificates of up to $105 CDN for their participation. This study was approved by the ethical review board at the IWK Health Centre (Halifax, Nova Scotia, Canada).

Measures

Sociodemographics included the participants' age, years of education, sex, sexual orientation, relationship status, country of residence, ethnicity, and annual household income. Couple-level variables included relationship length and annual income, which were averaged within the couple.

Touch attitudes. Touch aversion and touch for affection attitudes were assessed using a shortened version of the Seven Touch Scales (Brennan et al., 1998). We conducted an initial validation of the measure in a pilot study, where the 51 original items from the Seven Touch Scales, along with nine items that we developed to assess touch for emotion regulation, were piloted with 204 participants from Amazon's Mechanical Turk in an exploratory factor analysis (see Supplemental Material). The three scales (i.e., touch aversion attitudes, touch for affection attitudes, and touch for emotion regulation attitudes) emerged as unique factors. We selected items with factor loadings >.60. However,

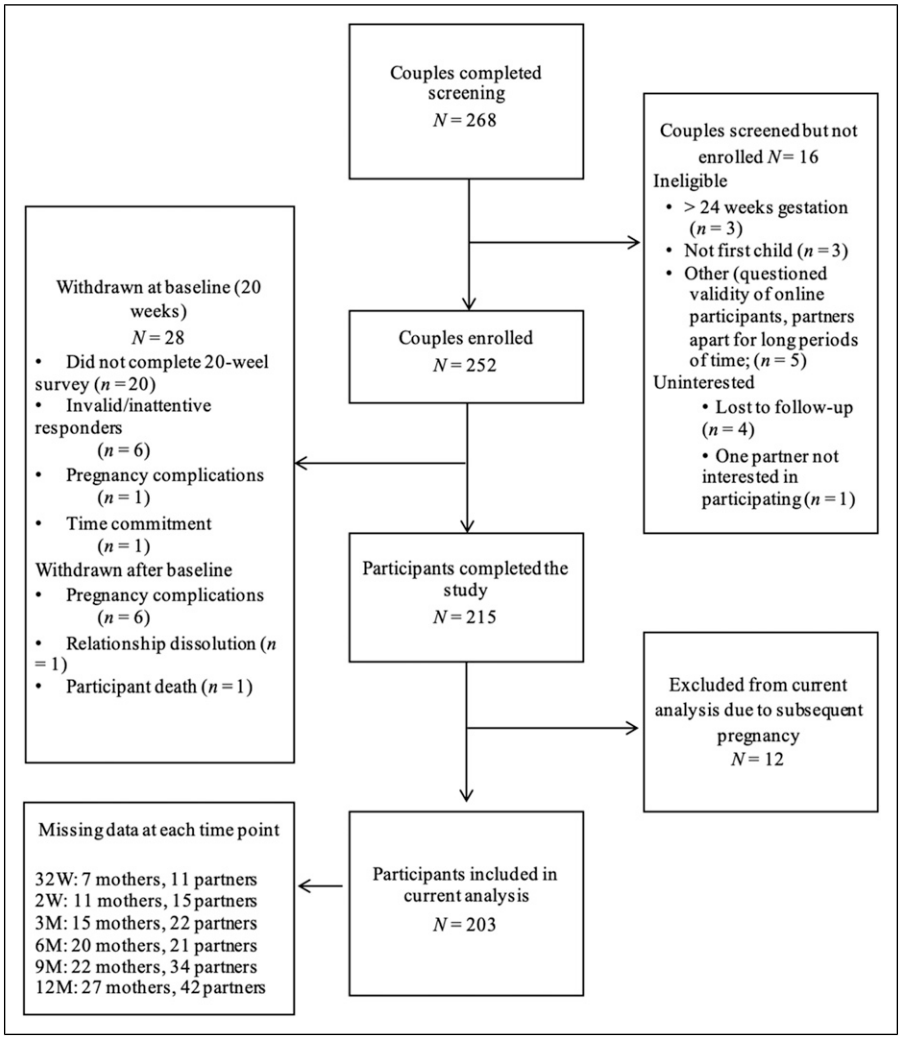

Figure 1. Flow chart of participant recruitment and enrollment.

to avoid participants' burden, we did not select all those items. Three items assessed touch aversion (*"Sometimes I find my partner's touch really annoying"*, "*I sometimes find my partner's touch intolerable"*, and *"My partner often complains that I don't touch him or her enough"*), and four items assessed touch for affection (*"I like my partner to hold my hand to demonstrate his or her affection for me"*, *"I like to hold my partner's hand to demonstrate affection for him or her"*, *"I usually hug my partner to show how happy I am to see him or her"*, and *"My partner's touch makes me feel loved"*). We also selected three items to assess attitudes towards the use of touch for emotion regulation (*"When I want to*

feel less negative emotions, I seek physical contact with my partner", "When I am stressed or tense, touching my partner helps me to relax", and *"When I want to feel more positive emotions, I seek physical contact with my partner"*). Items assessed attitudes towards touch in relationships on a scale of 1 (*not at all*) to 7 (*a lot*). Items from each subscale were summed, with higher scores reflecting greater endorsement of each attitude. Scales for touch aversion, touch for affection, and touch for emotion regulation demonstrated acceptable internal consistency in the current study at baseline for both gestational parents (Cronbach's α = .77, .78, .82, respectively) and their partners (Cronbach's α = .59, .84, and .90, respectively).

Sexual and affectionate behaviors. Participants reported how frequently they and their partner engaged in six different sexual behaviors (i.e., giving or receiving manual stimulation, giving or receiving oral sex, and sexual intercourse with vaginal or anal penetration) and two different affectionate behaviors (i.e., touching/caressing and kissing) over the past four weeks using the following scale: 0 = *not at all*, 1 = *once or twice*, 2 = *once per week*, 3 = *2-3 times per week*, 4 = *4-5 times per week*, 5 = *once a day*, and 6 = *more than once a day* (Rosen et al., 2020). The scales assessing the frequency and variety of sexual and affectionate behaviors showed strong internal consistency across time points (Cronbach's α = .89 to .91 and *r* = .64 to .79, respectively). Items were summed to create two total scores indicative of both the frequency and variety of sexual behaviors (0–36), and the frequency and variety of affectionate behaviors (0–12). This two-item affectionate behavior measure is similar to what has been used in previous studies (Vannier et al., 2017). Higher scores are indicative of more frequent and varied behaviors. Given that these behaviors are inherently dyadic (i.e., occurring between couple members), and that moderate to high correlations between partners were observed across time points for both sexual and affectionate behaviors (*r*s = .38–.75), data were averaged across partners and used as couple-level variables.

Analysis plan

Descriptive statistics were calculated with SPSS version 25, and all other analyses were run with M*plus* version 8.2 (Muthén & Muthén, 2015). At the item-level, missing data ranged from 0%–19.7% (two items, both at the 12-month postpartum time-point). Missing data were managed at the item-level with maximum likelihood imputation if less than 20% of the total number of items in each measure were missing (Newman, 2003). These instances included nine participants who were missing one or two items from the sexual behaviors scale across all timepoints. Retention rates across the longitudinal study very good (98%, 96%, 93%, 92%, and 92% at 32-week pregnancy, 3-month, 6-month, 9-month, and 12-month postpartum respectively). Missing data over time were managed using Full Information Maximum Likelihood (FIML) in the growth curve models (Muthén & Muthén, 2015). Bivariate correlations were run for sexual and affectionate behaviors across time points. Associations between relationship length, as a key sociodemographic variable, touch attitudes, and our outcomes of interest were tested, and if significant, controlled for in all analyses to ensure the findings hold.

The trajectories of sexual and affectionate behaviors across the transition to parenthood were examined through latent growth curve modeling (Preacher et al., 2008). We used a piecewise model (Perales, 2019), wherein the 3-month timepoint served as the knot. This knot reflects the point when an alteration in trajectory is anticipated based on previous research on the transition to parenthood, as birth is expected to cause a pivot in the trajectory of our outcomes (Perales, 2019). The weights at each time point were adjusted to account for the varied sampling time points. The unconditional LGCM allows for the exploration of the trajectory of sexual and affectionate behaviors across the transition to parenthood. To test the key hypotheses, six conditional LGCMs were used (i.e., separate models for each touch attitude and behavior), wherein both gestational/birthing parents and partners touch attitudes at baseline were included as time-invariant predictors of both the intercept and postpartum slopes of both sexual and affectionate behavior. Wald χ^2 tests within the LGCM were used to examine the differences between gestational/birthing parents and partners for their intercepts, slopes, and the effect of touch attitudes on their intercepts and slopes. Model fit was evaluated using the following indices: a non-significant Chi-Square value; a Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) greater than .95; a Root Mean Square Approximation of Error (RMSEA) of less than .06, with a 90% confidence interval that does not contain .08 or higher; and a Standardized Root Mean Square Residual (SRMR) of less than .08 (Hooper et al., 2008; Kline, 2015).

Results

The sample included predominantly mixed-sex couples (96.6%) residing in Canada (71.4%). Sociodemographic information is outlined in Table 1. Descriptives and correlations among touch attitudes, sexual behaviors, and affectionate behaviors across timepoints and between partners are provided in Table 2. See Supplemental Table 2 for a full correlation table between all variables across all time-points. Given our sample size of 203 couples and an α of .05, a sensitivity power analysis indicated that we had 90% power to detect small-sized actor or partner effects of $\beta = .15$ for touch aversion attitudes, $\beta = .17$ for touch for affection attitudes, and $\beta = .16$ for touch for emotion regulation touch attitudes (Acock, 2014). Thus, we had high power to detect small size standardized regression effects in our longitudinal models (see more details on the sensitivity power analysis on Supplemental Material).

Results are organized by hypothesis except for those exploring differences between gestational/birthing parents and partners, which are examined within each of the models. The association between touch attitudes and relationship length was tested, however it was not significant (rs = −0.13 – 0.10, $ps > .05$). We also tested for the association between relationship length and our outcomes of interest and found inconsistently significant associations (rs = −.17 – -.31, ps ≤ .05). We decided to conduct the most parsimonious model and therefore not include relationship length as a covariate.[3]

Frequency and variety of sexual and affectionate behaviors

Two unconditional LGCMs (for sexual and for affectionate behaviors) captured change from mid-pregnancy to 3-month postpartum (pregnancy slope), the intercept (at 3-month

Table 1. Sample Sociodemographics (*N* = 203 couples).

	Gestational/birthing parents	Partners
	M ± *SD* or *N* (%)	*M* ± *SD* or *N* (%)
Age (years)[a]	30.04 ± 3.49	31.58 ± 4.51
Years of education completed (since grade 1)	17.33 ± 2.79	17.00 ± 3.07
Sex		
Female	203 (100%)	7 (3.4%)
Male	-	196 (96.6%)
Sexual orientation		
Heterosexual	182 (89.7%)	194 (95.6%)
Bisexual	12 (5.9%)	3 (1.5%)
Lesbian/Gay	6 (3.0%)	4 (2.0%)
Pansexual	2 (1.0%)	-
Asexual	1 (0.5%)	1 (0.5%)
Between bisexual and lesbian	-	1 (0.5%)
Relationship status		
Married/Engaged/Common law	186 (91.6%)	185 (91.1%)
Living with/Dating one partner	17 (8.4%)	17 (8.4%)
Other	-	1 (0.5%)
Relationship length (months)	79.66 ± 43.24	79.66 ± 43.24
Country of residence		
Canada	145 (71.4%)	145 (71.4%)
United States of America	58 (28.6%)	58 (28.6%)
Ethnicity		
White	160 (78.8%)	164 (80.8%)
Asian American/Asian	19 (9.4%)	10 (4.9%)
Biracial/Multiracial	9 (4.4%)	7 (3.4%)
East Indian	6 (3.0%)	5 (2.5%)
African American/Black	3 (1.5%)	3 (1.5%)
Middle Eastern/Central Asian/South Asian	3 (1.5%)	7 (3.4%)
Other (e.g., not specified, Ashkenazi, first Nations, Hispanic, Pacific Islander)	3 (1.5%)	7 (3.5%)
Annual Income[b]		
<$60,000	39 (19.3%)	39 (19.3%)
>$60,000	163 (80.7%)	163 (80.7%)

Note. Due to missing data.
[a]Age was reported by 198 birthing parents and 195 partners,
[b]annual income was reported by 202 birthing parents and 202 partners.

Table 2. Descriptive statistics and correlations between partners for touch attitudes and the frequency of sexual and affectionate behaviors over time (N = 203 couples).

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	T-Aversion	-.09	-.43**	-.49**	-.16*	-.17*	-.17*	-.18*	-.19*	-.13	-.23**	-.17*	-.13	-.16*	-.16*	-.25**
2	T-Affection	-.45**	.19**	.39**	.07	.15*	.08	.16*	.15	.12	.41**	.32**	.19*	.21**	.24**	.26**
3	T-EmReg	-.57**	.43**	.04	.15*	.24**	.14	.13	.24**	.17**	.20**	.24*	.17*	.18*	.16*	.22**
3	Sex 24-weeks	-.16*	.05	.22**	.71**	.54**	.56**	.46**	.50**	.53**	.28**	.33**	.23**	.27**	.27**	.24**
4	Sex 32-weeks	-.18*	.09	.21**	.76**	.69**	.54**	.45**	.60**	.50**	.23**	.33**	.22**	.29**	.21**	.20**
5	Sex 3-months	-.16*	.05	.21**	.66**	.73**	.75**	.67**	.56**	.52**	.22**	.24**	.28**	.19*	.17*	.21**
7	Sex 6-months	-.12	.01	.14	.65**	.66**	.76**	.58**	.63**	.66**	.23**	.22**	.27**	.32**	.28**	.26**
8	Sex 9-months	-.17*	-.01	.17*	.64**	.64**	.69**	.78**	.68**	.70**	.24**	.31**	.35**	.32**	.28**	.31**
9	Sex 12-months	-.17*	.04	.15*	.59**	.57**	.63**	.69**	.77**	.67**	.23**	.28**	.31**	.31**	.24**	.32**
10	Aff 24-weeks	-.12	.27**	.27**	.29**	.30**	.23**	.22**	.22**	.23**	.56**	.61**	.56**	.58**	.58**	.51**
11	Aff 32-weeks	-.15*	.18*	.26**	.32**	.37**	.28**	.32**	.32**	.32**	.71**	.59**	.67**	.67**	.59**	.56**
12	Aff 3-months	-.13	.21**	.24**	.33**	.36**	.37**	.33**	.27**	.28**	.61**	.62**	.38**	.68**	.63**	.59**
13	Aff 6-months	-.07	.20**	.20**	.30**	.32**	.27**	.37**	.35**	.26**	.61**	.69**	.69**	.50**	.75**	.66**
14	Aff 9-months	-.11	.14	.20**	.28**	.30**	.26**	.28**	.37**	.27**	.57**	.64**	.65**	.76**	.63**	.71**
15	Aff 12-months	-.14	.16*	.23**	.34**	.34**	.40**	.37**	.40**	.46**	.52**	.59**	.63**	.67**	.70**	.48**
	Birthing parents *M*	6.61	25.29	17.52	7.11	5.77	4.82	5.33	5.63	5.94	10.75	10.44	9.66	9.44	9.35	9.26
	Birthing parents *SD*	3.77	3.48	3.66	5.35	4.63	4.70	4.56	4.26	4.20	2.05	2.40	2.90	3.00	3.17	3.17
	Partners *M*	6.56	23.27	15.51	7.76	6.18	5.05	5.99	6.38	6.23	10.38	10.13	9.50	9.43	9.36	9.14
	Partners *SD*	3.15	4.34	4.39	5.36	5.01	4.51	5.56	5.00	4.89	2.40	2.58	2.95	2.92	2.91	2.91
	Total *M*	6.58	24.28	16.51	7.43	5.97	4.93	5.66	5.99	6.08	10.57	10.29	9.58	9.43	9.35	9.20
	Total *SD*	3.47	4.06	4.16	5.36	4.82	4.60	5.08	4.64	4.53	2.23	2.49	2.92	2.96	3.04	3.05

postpartum), and change from 3-month to 12-month postpartum (postpartum slope; Figure 2). Model fit for sexual behaviors was adequate: χ^2 (12) = 27.67, p = .006; CFI = 0.98, TLI = 0.98, RMSEA = 0.08 [CI = 0.04 – 0.12], SRMR = 0.04. Couples' sexual behaviors intercept at 3-month postpartum was 5.12 (scale ranged from 0–36), SE = 0.31, $p < .001$. Consistent with hypothesis 1, couples demonstrated a significant decline in the frequency and variety of sexual behaviors during pregnancy (−0.27, SE = 0.03, $p < .001$) and a significant increase during the postpartum period (0.11, SE = 0.03, $p < .001$). Random estimates of the intercept were significant (15.73, SE = 1.94, $p < .001$) indicating variability in the frequency and variety of couples' sexual behaviors at 3-month postpartum. Random estimates of the slopes (pregnancy and postpartum) were also significant (0.11, SE = 0.03, $p < .001$; 0.09, SE = 0.02, $p < .001$), indicating variability in the degree to which couples' sexual behaviors declined in pregnancy and improved in the postpartum period, meaning that not all couples showed similar rates of decline or improvement over time.

Model fit for affectionate behaviors was good: χ^2 (12) = 17.32, p = .138; CFI = .99, TLI = .99, RMSEA = .05 [CI = .00 – .09], SRMR = .05. The LGCM revealed that couples' affectionate behaviors intercept was 9.65 (scale ranged from 0–12), SE = 0.17, $p < .001$. The frequency and variety of couples' affectionate behaviors demonstrated a significant decline during both the pregnancy (−0.12, SE = 0.02, $p < .001$) and postpartum periods (−0.07, SE = 0.02, $p < .001$). Random estimates of the intercept were significant (4.81, SE = 0.60, $p < .001$), indicating variability in couples' frequency and variety of affectionate behaviors at 3-month postpartum. Random estimates of couples' postpartum (0.02, SE = 0.01, p = .005), but not pregnancy (0.01, SE = 0.01, p = .068), slopes were also

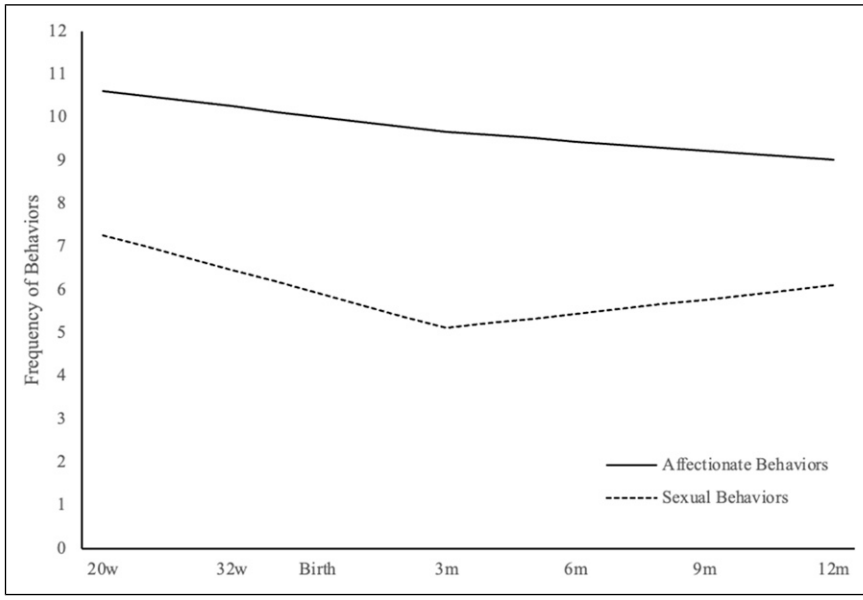

Figure 2. The dyadic frequency of sexual and affectionate behaviors across the transition to parenthood.

significant, indicating variability in the degree to which couples' affectionate behaviors declined during postpartum, but not during pregnancy.

Touch attitudes and the frequency of sexual and affectionate behaviors

Touch aversion

Sexual behaviors. Model fit for the conditional LGCM for sexual behaviors was adequate: χ^2 (18) = 31.86, p = .023; CFI = .98, TLI = .98; RMSEA = .06 [90% CI = .02–.10], SRMR = .03. Hypotheses were partially supported, wherein more aversive attitudes toward touch in gestational parents and partners at 20-week pregnancy predicted less frequent and less varied sexual behaviors at 3-month postpartum (H2a). Touch aversion attitudes in both gestational parents and partners, however, did not predict the degree of change (i.e., slopes) in the frequency and variety of sexual behaviors during pregnancy or the postpartum period (H2b and H2c). See Table 3 for all hypothesized estimates. There was no significant difference in the strength of the effect of birthing parents and partners' own touch aversion attitudes on the frequency and variety of sexual behaviors intercept at 3-month postpartum, Wald $\chi^2(1)$ = .65, p = .422.

Affectionate behaviors. Model fit for the conditional LGCM for affectionate behaviors was good: $\chi^2(18)$ = 25.17, p = .120; CFI = .99, TLI = 0.99; RMSEA = 0.04 [90%CI = .00 – .08], SRMR = .04. Hypotheses were partially supported, wherein more aversive

Table 3. Touch attitudes predicting the frequency of sexual and affectionate behaviors across the transition to parenthood.

		Sexual behaviors			Affectionate behaviors		
		Pregnancy slope	Intercept	Postpartum slope	Pregnancy slope	Intercept	Postpartum slope
Touch aversion	Birthing parents	.07 (0.10)	**−.19** (0.07)**	−.06 (0.10)	−.06 (0.14)	**−.19* (0.07)**	−.04 (0.12)
	Partners	.03 (0.10)	**−.23** (0.07)**	.08 (0.10)	−.19 (0.15)	**−.28*** (0.07)**	−.07 (0.12)
Touch for affection	Birthing parents	−.03 (0.11)	.02 (0.08)	.04 (0.08)	.02 (0.14)	**.17* (0.07)**	−.06 (0.12)
	Partners	.11 (0.11)	**.17* (0.08)**	−.14 (0.08)	−.08 (0.14)	**.29*** (0.07)**	.02 (0.12)
Touch for emotion regulation	Birthing parents	−.06 (0.10)	**.18* (0.07)**	−.02 (0.10)	.03 (0.14)	**.23** (0.07)**	.19 (0.12)
	Partners	−.12 (0.10)	**.20** (0.07)**	−.02 (0.10)	**.31* (0.15)**	**.28*** (0.07)**	−.03 (0.12)

Note. We present standardized (STDYX) coefficients or all APIM relationships, standard errors are depicted between brackets. Significant effects are highlighted in bold. *.05, **.01, ***.001.

attitudes toward touch in gestational parents and partners at 20-week pregnancy predicted less frequent and less varied affectionate behaviors at 3-month postpartum (H2a). Touch aversion attitudes in both gestational parents and partners, however, did not predict the degree of change (i.e., slope) in the frequency and variety of affectionate behaviors during pregnancy or the postpartum period (H4). There was no significant difference in the strength of the effect of gestational parents and partners' own touch aversion attitudes on the frequency and variety of affectionate behaviors, Wald χ^2 (1) = 1.75, p = .186.

Touch for affection

Sexual behaviors. Model fit for the conditional LGCM for sexual behaviors was adequate: $\chi^2(18)$ = 31.39, p = .026; CFI = .98, TLI = .98; RMSEA = .06 [90%CI = .02 – .10], SRMR = .03. Hypotheses were partially supported, wherein partners' (but not gestational parents') higher touch for affection attitudes at 20-week pregnancy predicted more frequent and varied sexual behaviors at 3-month postpartum (H3a). Touch for affection attitudes in both gestational parents and partners, however, did not predict the degree of change (i.e., slopes) in the frequency and variety of sexual behaviors during pregnancy or the postpartum period (H3b and H3c). There was no significant difference in the strength of the effect of gestational parents' and partners' own touch for affection attitudes on the frequency and variety of sexual behaviors, Wald $\chi^2(1)$ = 1.14, p = .286.

Affectionate behaviors. Model fit for the conditional LGCM for affectionate behaviors was good: $\chi^2(18) = 22.13$, $p = .226$; CFI = 1.00, TLI = .99; RMSEA = .03 [90% CI = .00 – .07], SRMR = .04. Hypotheses were partially supported, wherein greater touch for affection in gestational parents and partners at 20-week pregnancy predicted more frequent and varied affectionate behaviors at 3-month postpartum (H3a). Touch for affection attitudes in both gestational parents and partners, however, did not predict the degree of change (i.e., slopes) in the frequency and variety of affectionate behaviors during pregnancy or the postpartum period (H4). There was no significant difference in the strength of the effect of gestational parents' and partners' own touch for affection attitudes on the frequency and variety of affectionate behaviors, Wald $\chi^2(1)$ = .40, p = .525.

Touch for emotion regulation

Sexual behaviors. Model fit for the conditional LGCM for sexual behaviors was adequate: $\chi^2(18) = 41.18$, $p = .001$; CFI = .97, TLI = .96; RMSEA = .08 [90%CI = .05–.11], SRMR = .04. Hypotheses were partially supported, wherein more positive attitudes toward touch for emotion regulation in gestational parents and partners at 20-week pregnancy predicted more frequent and varied sexual behaviors at 3-month postpartum (H3a). Touch for emotion regulation attitudes in both gestational parents and partners, however, did not predict the degree of change (i.e., slopes) in the frequency and variety of sexual behaviors during pregnancy or the postpartum period (H3b and H3c). There was no significant difference in the strength of the effect of gestational parents' and partners' own

touch for emotion regulation attitudes on the frequency and variety of sexual behaviors intercept, Wald $\chi^2(1) = .005$, $p = .942$.

Affectionate behaviors. Model fit for the conditional LGCM for affectionate behaviors was good: $\chi^2(18) = 20.63$, $p = .299$; CFI = 1.00, TLI = 1.00; RMSEA = .03 [90%CI = .00 – .07], SRMR = .04. Hypotheses were partially supported, wherein more positive attitudes toward touch for emotion regulation in gestational parents and partners at 20-week pregnancy predicted more frequent and varied affectionate behaviors at 3-month postpartum (H3a). Furthermore, touch for emotion regulation in partners predicted the degree of change in the frequency and variety of affectionate behaviors during pregnancy, such that when partners indicated that they were more prone to engaging more in touch for emotion regulation, the couple experienced a less steep decline in affectionate behaviors during pregnancy (H4). However, gestational parents' touch for emotion regulation did not predict the degree of change (i.e., slope) in the frequency and variety of affectionate behaviors during pregnancy, nor did touch for emotion regulation attitudes in both gestational parents and partners predict the degree of change (i.e., slope) in the frequency and variety of affectionate behaviors during the postpartum period. There was no significant difference in the strength of the effect of gestational parents' and partners' own touch for emotion regulation attitudes on the frequency and variety of affectionate behaviors at 3-month postpartum, Wald $\chi^2(1) = .002$, $p = .960$, as well as for effect of touch for emotion regulation attitudes on couples' pregnancy slope, Wald $\chi^2(1) = .084$, $p = .773$.

Discussion

The main goal of the current study was to examine whether attitudes toward touch—touch aversion, touch for affection, and touch for emotion regulation—shaped the frequency and variety of sexual and affectionate behaviors among couples transitioning to parenthood (i.e., 20-week gestation to 12-month postpartum). Our dyadic analysis found that the frequency and variety of both sexual and affectionate behaviors declined from 20-week gestation until 3-month postpartum, however sexual activity began to increase between 3- and 12-month postpartum, whereas affectionate behaviors continued to decline. In line with our expectations, both partners' more positive attitudes toward touch for affection and emotion regulation, as measured in mid-pregnancy, predicted couples' higher frequency and variety of sexual and affectionate behaviors at 3-month postpartum—the period where these behaviors were the least frequent and varied—with no differences between members of the couple. Conversely, both partners' more aversive attitudes toward touch, as measured in mid-pregnancy, predicted couples' lower frequency and variety of sexual and affectionate behaviors at 3-month postpartum, again in a similar manner for both couple members. Touch attitudes generally did not predict the degree of change in the frequency or variety of sexual or affectionate behaviors across the transition to parenthood, with one exception: partners' more positive attitudes toward touch for emotion regulation in mid-pregnancy predicted a slower decline in couples' affectionate behaviors across pregnancy. These findings suggest attitudes toward touch as

a potential precursor to relationship-maintenance behaviors such as sexual and affectionate behaviors, particularly in the early postpartum period (i.e., around 3-month postpartum).

We observed significant changes in the frequency and variety of couples' sexual and affectionate behaviors across this transition period. Consistent with prior studies, and as discussed in our previous publication (Rosen et al., 2020), we found a gradual decline in the frequency and variety of couples' sexual behaviors from pregnancy up until 3-month postpartum, at which point sexual activity begins to increase (Jawed-Wessel & Sevick, 2017; Rosen et al., 2020). As for affectionate behaviors—which included touching/caressing and kissing—we observed a gradual and consistent decline from mid-pregnancy to one year postpartum. To our knowledge, this is the first study to examine this trajectory for new parents. Aligning with prior evidence of birthing parents being "touched out" across the perinatal period (i.e., because of caring for an infant, breastfeeding; Carathers, 2017; Yate, 2017), the current findings suggest that they, as well as their partners, may indeed be less motivated to engage in affectionate touch. As affectionate touch might be interpreted as an antecedent of sex (Curtis et al., 2012), new parents might avoid affectionate touch to prevent sexual activity, perhaps because their sexual desire is lower during this early period of adjustment (Jawed-Wessel & Sevick, 2017; Rosen et al., 2020).

Our results provide initial evidence that expectant couples' attitudes toward touch differentially predicted couples' frequency and variety of sexual and affectionate behaviors, particularly at 3-month postpartum. For those gestational parents and partners who endorsed greater aversion toward touch at mid-pregnancy, they reported less frequent and varied sexual activity and fewer affectionate behaviors at 3-month postpartum compared to those who endorsed aversion toward touch to a lesser degree, with no differences in these effects between the gestational and non-gestational partner. Individuals who are more averse to touch—that is, they find it uncomfortable and avoid it—tend to experience distress related to physical touch, more negative attitudes to physical closeness in general, and less intimacy and self-disclosure in relationships (Andersen & Leibowitz, 1978; Debrot et al., 2021). Our data support the idea that aversive attitudes toward touch can indeed translate to an avoidance of both sexual and affectionate behaviors, which might otherwise be beneficial for couples' well-being by promoting intimacy and closeness during a period that is typically marked by lower sexual and relationship satisfaction (i.e., 3-month postpartum; Rosen et al., 2020; Tavares et al., 2023).

Conversely, both gestational parents and partners who endorsed more positive attitudes toward touch for affection—that is, those who see touch as a way to seek and give affection in their relationship—engaged in more frequent and varied affectionate behaviors at 3-month postpartum. Affectionate touch is an important way through which partners communicate support, availability, and intimacy (Coan et al., 2017; Debrot et al., 2013, 2014), which is critical for the well-being of relationships. However, only partners', but not birthing parents', more positive attitudes toward touch for affection were associated with greater sexual frequency and variety at 3-month postpartum. As individuals engage in sex for different motives (Stephenson et al., 2011), this finding indicates that, particularly for partners, sex may serve the function of seeking and promoting affection across this challenging early postpartum period.

For those gestational parents and partners who endorsed more positive attitudes towards touch as a means of regulating their emotions in mid-pregnancy, they also reported more frequent and varied sexual and affectionate behaviors at 3-month postpartum. Because these couples believe touch to be a helpful strategy to manage difficult emotions, and negative emotional states such as anxiety or stress are common at this time for both partners (Tavares et al., 2019), they may be more likely to engage in physical touch in times of heightened stress such as early in the postpartum period. This interpretation is in line with the relational-cognitive theory of touch, which posits that greater touch between partners can benefit couples by decreasing partners' reactivity to stressful situations (Jakubiak & Feeney, 2016; 2017b). This effect was observed for both new parents with no differences between them. Attitudes towards touch for emotion regulation did not predict sexual or affectionate behaviors trajectories over time; although they did predict their frequency and variety specifically at 3-month postpartum, often the most challenging period after childbirth for new parents' well-being (Jawed-Wessel & Sevick, 2017; Rosen et al., 2020).

Touch attitudes generally did not predict the degree of change in sexual or affectionate behaviors during pregnancy or the postpartum period. A potential explanation for this finding is that changes to sexual and affectionate behaviors across the transition to parenthood might be influenced by a range of other simultaneous, more salient factors (e.g., mood, fatigue, discomfort, relational quality, childbirth-related factors; Fitzpatrick et al., 2021), making it difficult to isolate the unique effects of these attitudes. There was one exception to this pattern of results, such that when partners endorsed more positive attitudes toward touch for emotion regulation in mid-pregnancy, the rate of decline in affectionate behaviors was slower during the pregnancy period (but not postpartum). Partners who believe that touch helps them regulate difficult emotions might foster an environment in which gestational parents also feel more understood and cared for and who, in turn, are more likely to maintain couple affectionate behaviors during pregnancy. This finding aligns with expectations derived from the relational-cognitive theory of touch (Jakubiak & Feeney, 2017b) by specifically highlighting the ripple effects of positive social touch in couples' emotion regulation. However, the benefits of partners' attitudes toward touch for emotion regulation did not extend to predict rate of change in the postpartum period.

From a clinical perspective, the current findings provide some relevant insights. Professionals working with expectant and postpartum couples might consider assessing and fostering more positive attitudes to engage in physical touch (i.e., touch as a way to demonstrate affection and regulate difficult emotions) and to diminish discomfort around physical touch (i.e., lowering touch avoidance). These attitudes can be helpful to the maintenance of couples' sexual and affectionate behaviors, particularly in the early postpartum period which is often characterized by high levels of stress and low sexual and relationship satisfaction (Rosen et al., 2020; Tavares et al., 2019, 2023).

Limitations and future research

Although we followed strategies to recruit minoritized populations during data collection (e.g., targeted social media advertisements), our final sample was still fairly

homogenous such that the majority of individuals were married, White, and identified as cisgender and heterosexual. This limitation restricts the generalizability of our findings and suggests we need to make stronger efforts in future research to ensure more diverse samples. Also, we did not examine possible gender/sex differences but rather chose to focus on differences between gestational/non-gestational partners given that our study was inclusive of same-sex couples and that prior research suggests that gestational/birthing parents experience greater negative effects across the transition to their sexuality (Rosen et al., 2020; Tavares et al., 2022). Participants reported on their sex but not on their gender, and this limitation might obscure some variations within sex/gendered experiences. Future research might seek to tease apart any influence of gender/sex on the observed associations.

Regarding our measurement of touch attitudes, additional types of attitudes toward touch (e.g., coercive control, safe haven touch; Brennan et al., 1998) might also be relevant to new parents' sexual and affectionate behaviors. These were not assessed in the current study and could be examined in future research. Also, partners' touch aversion subscale in the current study showed low reliability, suggesting that more items might be necessary to assess this construct.

Finally, our sexual and affectionate behaviors variables confound frequency and variety. We recognize that there are limitations to this approach, namely that it does not account for the fact that some couples may never engage in certain sexual or affectionate behaviors (e.g., anal sex, oral sex). As such, future studies might want to look at the frequency and variety of these behaviors separately. At 3-month postpartum specifically, we observed a lower correlation in the within-couple rates of affectionate behaviors, which hampers the interpretation of this couple-level score; it is possible that, given the many demands of the early postpartum, partners might be perceive the frequency of these behaviors differently. Furthermore, we observed distinct trajectories of sexual and affectionate behaviors across the transition to parenthood, but it is possible that within-group variability in these trajectories exist, as suggested by prior research (Rosen et al., 2020). Given the high correlation within sexual and affectionate behaviors over time, it is possible that couples who exhibit higher or lower levels of these behaviors relative to others (e.g., 3-month postpartum) are also likely to have exhibited similar patterns during pregnancy. Thus, the predictive effect of attitudes toward touch on sexual and affectionate behaviors at early postpartum may not be specific to that time frame but rather reflects a general association between attitudes towards touch and one's overall sexual and affectionate behaviors. A group-based trajectory approach would allow us to further examine for which specific groups of couples each set of attitudes toward touch would be more beneficial. Also, whether the observed trajectories are associated with better or worse subjective outcomes (e.g., sexual and relational satisfaction, distress) is largely unexamined. Interestingly, using this same sample we have previously shown that belonging to a low sexual frequency trajectory across the transition to parenthood is not necessarily associated with experiencing a low sexual satisfaction or high sexual distress trajectory across this period (Rosen et al., 2020). To the best of our knowledge, this was the first study examining the link between touch attitudes and

sexual and affectionate behaviors in couples; whether these effects extend beyond the transition to parenthood could be explored further.

Conclusions

In this study we provide empirical support for the relational-cognitive model of touch (Jakubiak & Feeney, 2017b) across a critical period for couples' relationships. Furthermore, we identify attitudes toward touch as a relevant predictor of sexual and affectionate behaviors of new parents at 3-month postpartum, an often critical time for their individual and relational well-being. Touch behaviors in couples (i.e., sexual activity, affectionate behaviors) are crucial to maintain because they promote intimacy and support (Jakubiak & Feeney, 2016, 2017b), especially during challenging periods in relationships. Our findings suggest that promoting more positive attitudes toward touch (i.e., as a strategy for emotion regulation and for showing affection) and reducing touch aversion attitudes in pregnancy might be helpful for couples to navigate novel challenges around 3-month postpartum such as reduced frequency and range of sexual and affectionate behaviors. Educators and clinicians who work with new parent couples might use the current findings to promote awareness and identification of different touch attitudes during pregnancy, discuss motivations for touch in both partners, and underline the benefits of touch to couples' subsequent sexual and affectionate behaviors at postpartum.

Author's note

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Open research statement

As a part of IARR's encouragement of open research practices, the author(s) have provided the following the information: the predictions and analysis plan were pre-registered prior to analyzing (but after collecting) the data and are available at the OSF page of the study, along with deidentified data and syntax: https://osf.io/6yvt4/

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Supplemental Material

Supplemental material for this article is available online.

Notes

1. All participants who gave birth indicated that their gender/sex was woman/female, with one person identifying as a trans woman. Because we do not have data on whether all of these participants identify as mothers, we refer to this group collectively as "gestational/birthing parents". We used the terms non-/birthing parent when we refer to effects related to couple members' experiences at any postpartum timepoint, whereas gestational parent/partner are used to refer to effects related to couple members' experiences at any pregnancy timepoint.
2. This prior analysis observed an overall decline in sexual frequency from pregnancy to postpartum (using a freely estimated model), yet a visual examination suggests a change in the shape of the trajectory around 3-month postpartum.
3. We tested our models with relationship length as a covariate upon recommendation by a reviewer during the review process and all results were maintained, however all models showed poorer model fit. Relationship length was uncorrelated with all other variables in these models.

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